USB External Hard Drive Installation Guide

USB 2.0 and 1.1

Windows & Macintosh

160GB	**HD3U-160**
120GB	**HD3U-120**
80GB	**HD3U-80**
40GB	**HD3U-40**

TEAC®

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Safety Precautions

TEAC Hard Drives (HD) are high-precision electronic devices. Do not use them in any manner other than as specified in this manual. Please read this manual in its entirety before you begin the installation procedure. Use of controls, adjustments, or performance of procedures other than those specified herein may result in hazardous radiation exposure.

To prevent fire or shock, do not expose the unit to moisture or rain.

To prevent electrical shock, do not attempt to disassemble the hard drive. Refer servicing to authorized personnel.

A user who changes or modifies the unit or operating procedures specified herein without express written approval by the manufacturer will void user authority to operate the equipment.

Specifications and features are subject to change without notice or obligation.

FCC Radio Frequency Interference Regulations

Warning: This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions contained in this manual, may cause harmful interference to radio and television communications. This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Subpart J of Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. To ensure compliance with FCC rules, the cable that connects the unit to the computer must be a shielded interface cable.

Note: Connecting this device to peripheral devices that do not comply with Class B requirements or using an unshielded peripheral cable could result in interference to radio or television reception. To ensure that the use of this product does not contribute to interference, use a shielded interface cable.

If this equipment does cause harmful interference to radio or television reception (which can be determined by turning the equipment off and on), the user may try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Move the device and the receiver further apart.
- Connect the equipment to an electrical outlet on a different circuit than the receiver.
- Consult the dealer or an experienced audio television technician.

Also, the following booklet may prove helpful: *How to Identify and Resolve Radio-TV Interference Problems*. It is available from the U.S. Government Printing Office, Washington, D.C. 20402, stock number 004-000-00345-4.

The user is cautioned that any changes or modifications not expressly approved by TEAC America, Inc. could void the user's warranty.

Copyright and Trademark Information

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Registration Information

There is no need to register any portion of this kit. Refer to "Technical Support" on page 13 if you wish to contact TEAC.

Product Warranty Information

This TEAC Hard Drive features a one year warranty from the date of purchase. Please keep your receipt as proof of purchase.

About This Guide

This guide, the *TEAC USB Hard Drive Installation Guide,* explains how to install and operate TEAC USB 2.0/1.1 external hard drives (40GB, 80GB, 120GB and 160GB capacities). This guide is divided into the following main sections:

Introduction: This section introduces the USB hard drive and describes recommended system requirements and shipping package contents.

Connecting the Hard Drive: This section explains how to connect the USB hard drive to your computer.

Installing the Driver Software: This section explains how to install the appropriate driver software (if required) from the included CD-ROM.

Specifications: This appendix provides technical specifications for the TEAC USB Hard Drive (models HD3U-160, HD3U-120, HD3U-80, HD3U-40).

Technical Support: This appendix provides technical support listings for TEAC in North America.

Introduction

Thank you for purchasing the TEAC External USB 2.0/1.1 Hard Drive kit.

TEAC USB hard drives are external peripheral devices designed for use with IBM PC (or compatible) or Macintosh computers that feature a USB (Universal Serial Bus) port, version 2.0 or 1.1.

TEAC USB hard drives are compatible with USB 2.0 for high speed performance. The hard drives are also backward compatible with USB 1.1.

Four models of hard drives are available in capacities of 40GB, 80GB, 120GB and 160GB. The connection and installation procedure is the same for all configurations.

TEAC USB hard drives are hot-swappable and can achieve data transfer rates of up to 480Mbits/sec when operating in USB 2.0 mode. (See “Specifications” on page 13 for details.)

Minimum System Requirements

- ❑ An available USB port (USB version 1.1 or 2.0)

  To achieve high speed USB 2.0 performance, your computer must feature a built-in USB 2.0 port. Otherwise, you must install a third-party USB 2.0 PCI controller card (not included in this kit) in your computer.

  If you plan to connect the USB hard drive to a USB 2.0 hub, use only a self-powered USB 2.0 hub.

- ❑ CD-ROM drive (to install driver software for Windows 98SE only) or Internet access (to download driver software)

PC Compatible

- ❑ IBM PC-compatible Pentium II 300MHz computer
- ❑ Windows 98SE/Me/2000/XP (full installation, no upgrades. Windows 95 and NT 4.0 are not supported)
- ❑ 64MB of RAM

Macintosh

- ❑ Apple Macintosh G3 (or higher processor) computer
- ❑ Mac OS X v10.0 or later (earlier versions not supported)
- ❑ 32MB RAM

USB Hard Drive Package Contents

The TEAC USB Hard Drive kit includes the following items (Figure 1).

- ❑ TEAC External USB 2.0/1.1 Hard Drive
- ❑ CD-ROM containing driver software (required for Windows 98SE only)
- ❑ USB 2.0/1.1 interface cable
- ❑ 120V AC power adapter and cable
- ❑ Vertical support stand
- ❑ *TEAC USB External Hard Drive Installation Guide* (this booklet)

***Note:** A USB 2.0 adapter card is not included in this kit.*

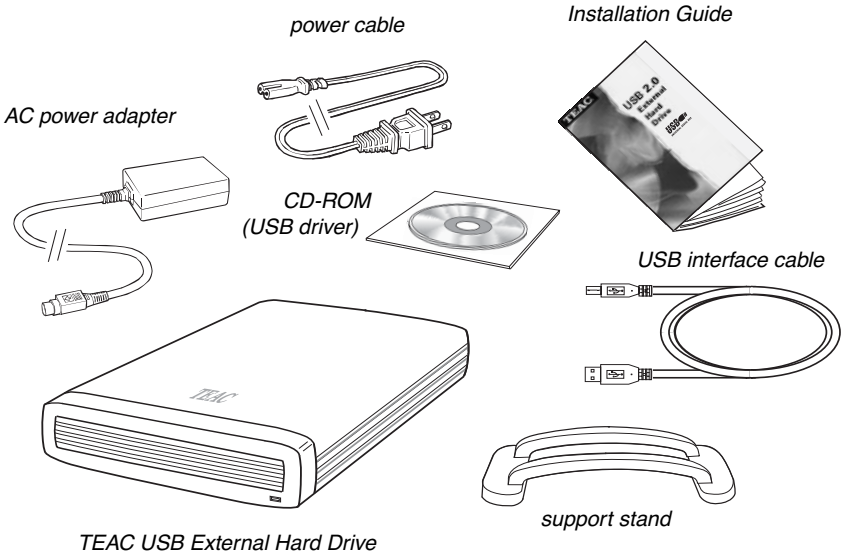

Figure 1. USB Hard Drive Kit Package Contents

***Note:** If any of the items above is missing from your kit upon purchase, please contact the vendor immediately for a replacement kit.*

Front and Rear Panels

Figure 2 illustrates the front and rear panels of the USB hard drive.

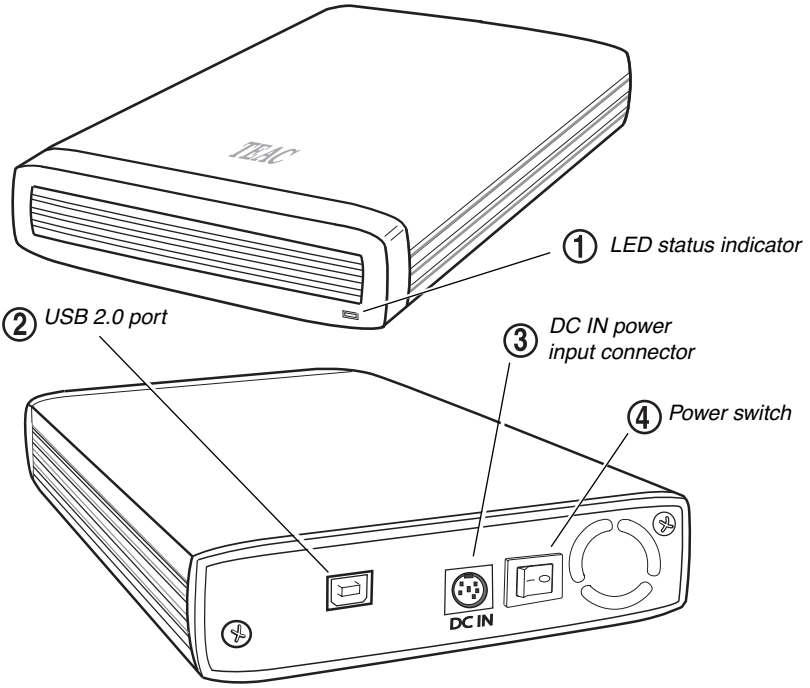

Figure 2. Front and Rear Panels

① **LED status indicator:** Lights up (green) at power on. Flashes (orange) during data read and write operations.

② **USB 2.0 port:** Connect the included USB interface cable to this USB connector. (The other end of the USB cable connects to a USB 2.0/1.1 port on your computer. See "Connecting the USB Hard Drive to an IBM PC-Compatible or Macintosh System" on page 5.)

③ **DC IN power connector:** Connect the included power cord to this input connector. Plug the other end into an AC power outlet. (For more information, see "Connecting the USB Hard Drive to an IBM PC-Compatible or Macintosh System" on page 5).

> ***Note:*** *To ensure proper operation, use only the original AC power adapter and cord with your TEAC USB hard drive.*

④ **Power switch:** Turns the power on or off.

Connecting the USB Hard Drive

This section explains how to connect the USB hard drive to an IBM PC-compatible or Macintosh computer. It also explains how to install the driver software (if required).

Drive Orientation

Position your USB hard drive horizontally on a stable, flat surface. The TEAC logo should face up.

Alternatively, you can use the included vertical support stand to position the USB hard drive in a vertical orientation to save desktop space (Figure 3).

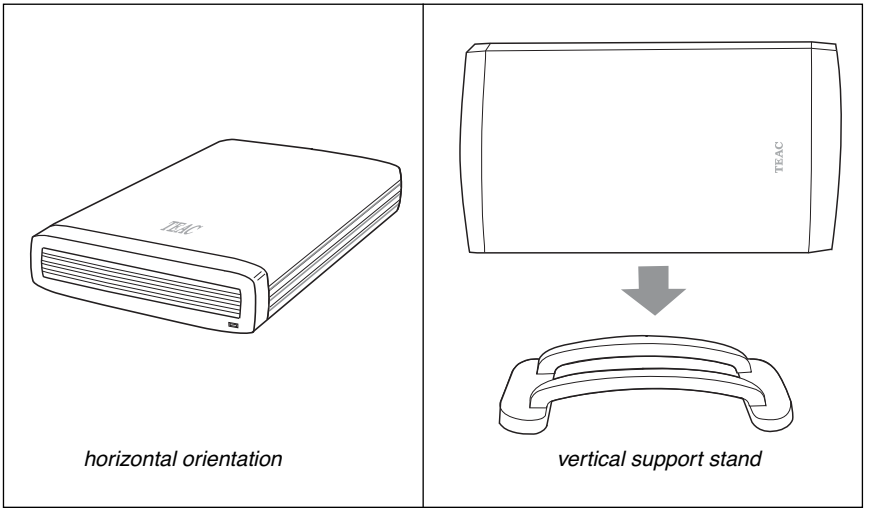

Figure 3. Hard Drive Orientation

Connecting the USB Hard Drive to an IBM PC-Compatible or Macintosh System

Note: *The following steps (1-8) apply to both IBM PC-compatible and Macintosh systems.*

1. **Turn off the power to your USB hard drive.**
2. **Turn on the power to your computer.**
3. **Insert the power cable plug into the DC IN input connector on the rear panel of the USB hard drive (Figure 4 and Figure 5).**

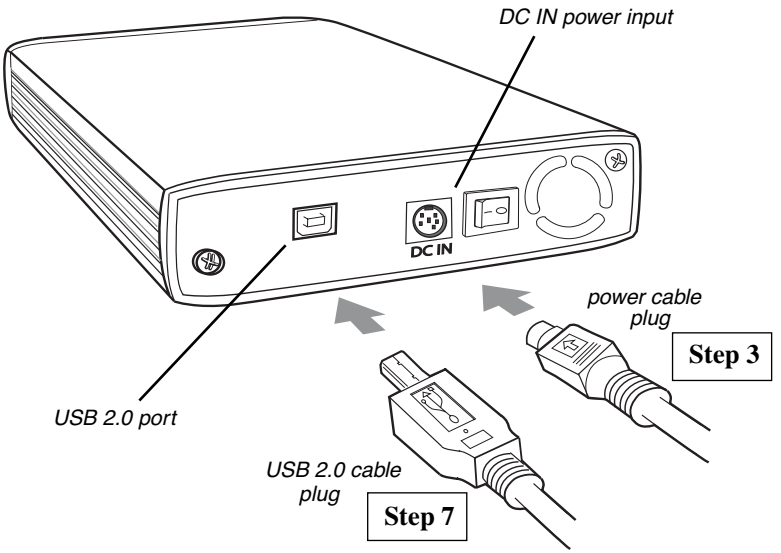

Figure 4. Connecting USB and Power Cables to External USB Hard Drive

4. **Insert the power cable's female connector into the AC power adapter block (Figure 5 on page 6).**
5. **Plug the other end of the power cable into an AC outlet (Figure 5 on page 6).**

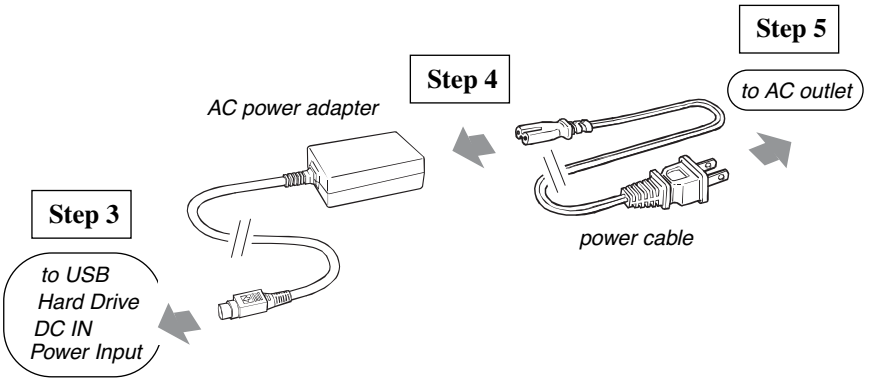

Figure 5. Connecting the Power Adapter and Cable

6. Connect the wider plug of the included USB 2.0 cable to a USB port on your computer (Figure 6).

Figure 6. Connecting to USB Port on Computer

7. Connect the other end of the USB 2.0 cable to the USB 2.0 port on the rear panel of the USB hard drive (Figure 4 on page 5).

> ***Note:*** *If you are connecting the cable to a USB 2.0 hub, use a USB hub that features an AC power adapter. Connect the cable directly to a USB 2.0 port on the computer or USB hub. Do not connect the cable to a USB connector on the keyboard.*

8. Turn on the power switch on the USB hard drive.

Confirm that the Power LED on the USB hard drive lights up.

> ***Note:*** *If you have an IBM PC-compatible, continue with the "Installing the Driver Software" on page 7. If you have a Macintosh system, continue with "Macintosh System Installation" on page 11.*

Installing the Driver Software

Installation of the TEAC-provided driver depends on the Windows version in your IBM-compatible computer. This driver is required only for Windows 98SE. For Windows Me/2000/XP, the built-in USB driver is loaded automatically.

Installing the Driver Software on Windows Computers

Windows Me/2000/XP

1. **Connect the USB hard drive to your computer and turn on the power switch on the USB hard drive (as explained in "Connecting the USB Hard Drive to an IBM PC-Compatible or Macintosh System" on page 5).**

   Windows Me/2000/XP automatically detects and identifies the new device as a "USB Mass Storage Device" and installs the appropriate drivers. (There is no need to load the driver CD-ROM for Windows Me/2000/XP.)

Figure 7. Found New Hardware Panel

   (If Windows displays a Hardware Update Wizard, click the Recommended option, then click Next to proceed.)

2. **When the installation is complete, restart your computer.**

   Windows displays an icon for the USB hard drive in the My Computer panel (Figure 8). The USB hard drive is preformatted as a single FAT32 partition and is ready for use.

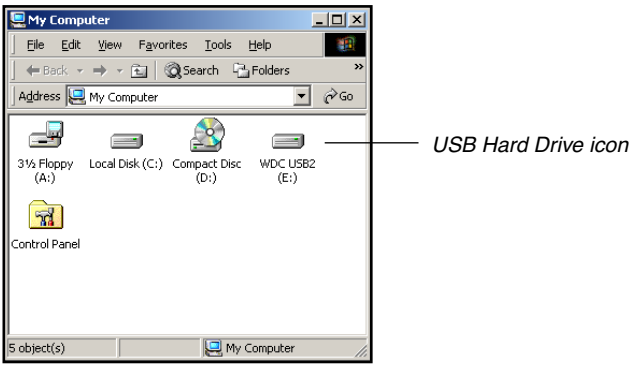

Figure 8. Windows "My Computer" Panel

Windows 98SE (Second Edition)

Note: *If your computer runs Window 98SE, you must install the drivers from the included CD-ROM disc. Follow the steps below.*

1. **Insert the included CD-ROM Driver Installation disc into your computer's CD-ROM drive.**
2. **Connect the USB cable to the USB port on your computer (Figure 6 on page 6).**

   Windows detects the new device and displays an Add New Hardware Wizard panel (Figure 9).

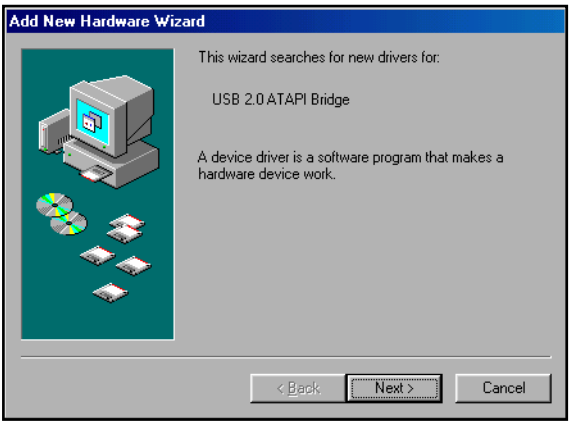
Add New Hardware Wizard
This wizard searches for new drivers for:
USB 2.0 ATAPI Bridge
A device driver is a software program that makes a hardware device work.
< Back
Next >
Cancel

Figure 9. Add New Hardware Wizard

3. **Click** Next**.**

   Windows displays the following Add New Hardware Wizard panel (Figure 10).

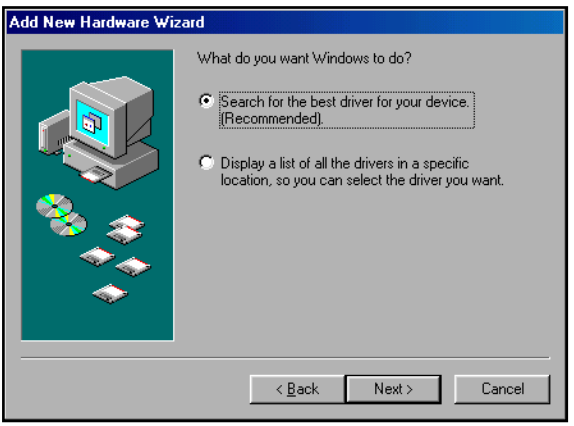
Add New Hardware Wizard
What do you want Windows to do?
Search for the best driver for your device. (Recommended)
Display a list of all the drivers in a specific location, so you can select the driver you want.
< Back
Next >
Cancel

Figure 10. Search for Best Driver

4. **Select the option** Search for the best driver **for your device, then click** Next **(Figure 10).**

   Windows displays the following Add New Hardware Wizard panel (Figure 11).

Add New Hardware Wizard
Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.
Floppy disk drives
CD-ROM drive
Microsoft Windows Update
Specify a location:
A:
Browse...
< Back
Next >
Cancel

Figure 11. Select CD-ROM Drive

5. **Select the option to search for drivers on the** CD-ROM drive**, then click** Next **(Figure 11).**

   The Hardware Wizard locates the drivers on the CD-ROM and displays the following panel (Figure 12).

Add New Hardware Wizard
Windows driver file search for the device:
USB 2.0 Storage Adapter
Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue.
Location of driver:
D:\TPP300.INF
< Back
Next >
Cancel

Figure 12. Ready to Install the Driver

6. **Click** Next **(Figure 12).**

   The Hardware Wizard installs the appropriate driver and displays the following panel (Figure 13).

Add New Hardware Wizard
USB 2.0 Storage Adapter
Windows has finished installing the software that your new hardware device requires.
< Back
Finish
Cancel

Figure 13. Completing Driver Installation

7. Click Finish **to complete the installation (Figure 13).**

When the installation is complete, Windows displays an icon for the USB hard drive in the My Computer panel (Figure 8 on page 7). The USB hard drive was preformatted as a single FAT32 partition and is now ready for use.

Macintosh System Installation

Note: *Mac OS X Version 10.0 is the minimum OS requirement for the TEAC USB hard drive. (Earlier versions of the Mac OS are not supported.)*

1. **Connect the USB hard drive to your computer, then turn on the power to the USB hard drive.**

   (Refer to "Connecting the USB Hard Drive to an IBM PC-Compatible or Macintosh System" on page 5).

   The Macintosh automatically detects the USB hard drive and displays the icon for the USB hard drive on your Macintosh desktop (Figure 14).

   It may take a couple of minutes to mount the USB hard drive on your desktop the first time you connect it to the system. Do not disconnect the USB hard drive, or cut the power to the USB hard drive, during this process.

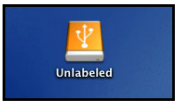

Figure 14. USB Hard Drive Icon Mounted on Macintosh Desktop

Note: *The USB hard drive is preformatted as a FAT32 partition. TEAC recommends that you re-initialize the USB hard drive using the Mac OS X Disk Utility (Figure 15 on page 11).*

Re-initializing the USB Hard Drive Using the Apple Disk Utility

1. **In the** Disk Utility**, click the** Erase **tab, and highlight the unlabeled disk (Figure 15).**
2. **For the** Volume Format **option, select** Mac OS Extended**.**
3. **In the** Name **field, key in a name for your USB hard drive.**
4. **Click the** Erase **button, then follow the displayed instructions.**

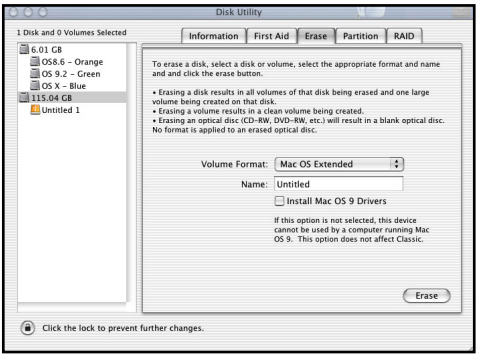
Disk Utility
1 Disk and 0 Volumes Selected
Information
First Aid
Erase
Partition
RAID
6.01 GB
OS8.6 – Orange
OS 9.2 – Green
OS X – Blue
115.04 GB
Untitled 1
To erase a disk, select a disk or volume, select the appropriate format and name and and click the erase button.
• Erasing a disk results in all volumes of that disk being erased and one large volume being created on that disk.
• Erasing a volume results in a clean volume being created.
• Erasing an optical disc (CD-RW, DVD-RW, etc.) will result in a blank optical disc. No format is applied to an erased optical disc.
Volume Format:
Mac OS Extended
Name:
Untitled
Install Mac OS 9 Drivers
If this option is not selected, this device cannot be used by a computer running Mac OS 9. This option does not affect Classic.
Erase
Click the lock to prevent further changes.

Figure 15. Disk Utility Erase Tab

Disconnecting the USB Hard Drive from a Computer

Caution: *Follow the steps below that are appropriate for your computer system before you disconnect the USB hard drive from your computer. Failure to do so may result in loss of data.*

Windows

1. **Double-click the Windows "Unplug or Eject Hardware" icon in your system tray.**

   Windows displays the Unplug or Eject Hardware panel (Figure 16).

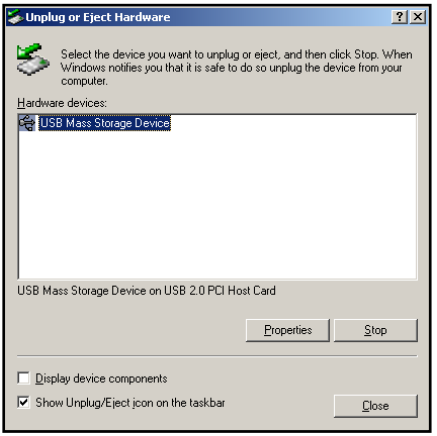
Unplug or Eject Hardware
Select the device you want to unplug or eject, and then click Stop. When Windows notifies you that it is safe to do so unplug the device from your computer.
Hardware devices:
USB Mass Storage Device
USB Mass Storage Device on USB 2.0 PCI Host Card
Properties
Stop
Display device components
Show Unplug/Eject icon on the taskbar
Close

Figure 16. Unplug or Eject Hardware Panel

2. **Select** USB Mass Storage Device**, then click the** Stop **button.**

   Windows displays a confirmation panel.

3. **Click** OK **to confirm your selection.**

   You may now safely disconnect the USB hard drive from your computer.

Macintosh

Drag the icon for the USB hard drive (see Figure 14 on page 11) to the Trash icon on the Macintosh desktop. You may now safely disconnect the USB hard drive from your computer.

Shutting Down the USB Hard Drive

Turn off the power to the USB hard drive only *after* you disconnect the USB hard drive from your computer or have shut down your computer system. Do not turn off the power switch on the USB hard drive while the computer is operating.

Specifications

The following table lists the product specifications for TEAC USB external hard drive.

Models	**TEAC USB 2.0/1.1 External Hard Drives** **Model numbers: HD3U-160, HD3U-120, HD3U-80, HD3U-40**
Capacity	HD3U-160: 160GB HD3U-120: 120GB HD3U-80: 80GB HD3U-40: 40GB
Interface	USB 2.0/USB 1.1
Data Transfer Rate	USB 2.0 480Mb/sec (high speed) 12Mb/sec (full speed) 1.5Mb/sec (low speed) USB 1.1 n/a 12Mb/sec (full speed) 1.5Mb/sec (low speed)
Access Time	9.5 msec
Buffer	2MB
Spindle Speed	5400RPM to 7200RPM maximum (model dependent)
MTBF	100,000 POH
Dimensions	5 $\frac{3}{8}$ inches (W) x 1 $\frac{3}{4}$ inches (H) x 8 $\frac{3}{4}$ inches (D)
Weight	2.0 lbs
Power Requirement	120VAC (AC adapter included)
Installation	Horizontal or vertical in support stand, plus or minus 10°
Operating Temperature	5° C to 40° C (41° F to 104° F)
Storage Temperature	-30° C to 60° C (-22° F to 140° F)
Safety Standards	UL, FCC
Warranty	One year

Technical Support

For technical support, please contact the TEAC Service and Support Center:

North America
TEAC America, Inc. (USA)
Technical Support
Telephone: (323) 727-4860 • Fax: (323) 869-8751
Monday - Friday 8:00 a.m. - 5:00 pm PST
http://www.teac.com/DSPD/techsupport.htm
E-mail: dspdtsg@teac.com